

## IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 8-13 and 20-25 in accordance with the following:

1. (currently amended) A signal processing apparatus, comprising:  
a radio radar unit emitting/receiving radio waves in different directions;  
a parameter extraction unit extracting a plurality of parameters relating to ~~desensitization~~ deterioration of radar sensitivity from received radio waves obtained from different directions;  
and  
a determination unit determining whether ~~or not~~ received power of received waves indicates ~~desensitization~~ deterioration of radar sensitivity of radio radar using a threshold not constant at least for one parameter in a multidimensional space representing the plurality of parameters using coordinate axes.
2. (original) The apparatus according to claim 1, wherein said parameter is an average of a normalized reception value of an object in a FM-CW mode.
3. (original) The apparatus according to claim 1, wherein said parameter is an average received power value for a velocity of a vehicle of an observer in a CW mode in all directions and a difference between a maximum value and a minimum value of a received power value in each direction.
4. (original) The apparatus according to claim 1, wherein said parameter is an average received power value for a velocity of a vehicle of the apparatus in a CW mode in all directions and a standard deviation or a variance of received power in each direction.
5. (original) The apparatus according to claim 1, wherein said parameter is an average received power value for a velocity of a vehicle of an observer in a CW mode in all directions and a coefficient value of an approximate curve of a distribution along a direction of an average received power value in each direction.

6. (original) The apparatus according to claim 1, wherein said radio radar has a CW mode using radio waves of continuous waves and an FM-CW mode using frequency modulated radio waves.

7. (original) The apparatus according to claim 6, wherein a received power value obtained by a radio radar in the FM-CW mode is normalized into a received power value when a mobile object is within a predetermined distance.

8. (currently amended) The apparatus according to claim 7, wherein an estimated total number of mobile objects captured by a radio radar is computed by performing slice processing on the normalized and received power value, and it is determined that ~~desensitization~~ deterioration of radar sensitivity of the radio radar is detected when the estimated total number of the mobile objects equals or exceeds a predetermined value.

9. (currently amended) The apparatus according to claim 8, wherein it is determined that ~~desensitization~~ deterioration of radar sensitivity is detected when a distance between a maximum value and a minimum value of the normalized and received power value is equal to or smaller than a predetermined value.

10. (currently amended) The apparatus according to claim 6, wherein it is determined whether or not ~~desensitization~~ deterioration of radar sensitivity is detected using a parameter obtained in a CW mode and a parameter obtained in an FM-CW mode, and it is determined that ~~desensitization~~ deterioration of radar sensitivity of the radio radar is detected when ~~desensitization~~ deterioration of radar sensitivity is detected in both modes.

11. (currently amended) The apparatus according to claim 1, wherein said determination unit comprises a first counter for counting a value each time it is determined that ~~desensitization~~ deterioration of radar sensitivity is detected, and a second counter for counting a value each time it is determined that ~~desensitization~~ deterioration of radar sensitivity is not detected, and it is determined that ~~desensitization~~ deterioration of radar sensitivity is detected when the first counter exceeds a predetermined value.

12. (currently amended) The apparatus according to claim 11, wherein at least a first and a second threshold are used in determining that ~~desensitization~~ deterioration of radar sensitivity is detected, and counting step values of the second and first counters are increased respectively when an average received power value is larger than the first threshold and the average received power value is smaller than the second threshold.

13. (currently amended) A signal processing method, comprising:  
emitting/receiving radio waves using radio radar in different directions;  
extracting a plurality of parameters relating to ~~desensitization~~ deterioration of radar sensitivity from received radio waves obtained from different directions; and  
determining whether ~~or not~~ received power of received waves indicates ~~desensitization~~ deterioration of radar sensitivity of radio radar using a threshold not constant at least for one parameter in a multidimensional space representing the plurality of parameters using coordinate axes.

14. (original) The method according to claim 13, wherein said parameter is an average of a normalized reception value of an object in a FM-CW mode.

15. (original) The method according to claim 13, wherein said parameter is an average received power value for a velocity of a vehicle of the apparatus in a CW mode in all directions and a difference between a maximum value and minimum value of a received power value in each direction.

16. (original) The method according to claim 13, wherein said parameter is an average received power value for a velocity of a vehicle of an observer in a CW mode in all directions and a standard deviation or a variance of received power in each direction.

17. (original) The method according to claim 13, wherein said parameter is an average received power value for a velocity of a vehicle of an observer in a CW mode in all directions and a coefficient value of an approximate curve of a distribution along a direction of an average received power value in each direction.

18. (original) The method according to claim 13, wherein said radio radar has a CW mode using radio waves of continuous waves and an FM-CW mode using frequency modulated radio waves.

19. (original) The method according to claim 18, wherein a received power value obtained by a radio radar in the FM-CW mode is normalized into a received power value when a mobile object is within a predetermined distance.

20. (currently amended) The method according to claim 19, wherein an estimated total number of mobile objects captured by a radio radar is computed by performing slice processing on the normalized and received power value, and it is determined that ~~desensitization~~ deterioration of radar sensitivity of the radio radar is detected when the estimated total number of the mobile objects equals or exceeds a predetermined value.

21. (currently amended) The method according to claim 20, wherein it is determined that ~~desensitization~~ deterioration of radar sensitivity is detected when a distance between a maximum value and a minimum value of the normalized and received power value is equal to or smaller than a predetermined value.

22. (currently amended) The method according to claim 18, wherein it is determined whether ~~or not desensitization~~ deterioration of radar sensitivity is detected using a parameter obtained in a CW mode and a parameter obtained in an FM-CW mode, and it is determined that ~~desensitization~~ deterioration of radar sensitivity of the radio radar is detected when ~~desensitization~~ deterioration of radar sensitivity is detected in both modes.

23. (currently amended) The method according to claim 13, wherein in said determination step, a first counter value for use in counting a value each time is used to determine that ~~desensitization~~ deterioration of radar sensitivity is detected, and a second counter value for use in counting a value each time is used to determine that ~~desensitization~~ deterioration of radar sensitivity is not detected, and it is determined that ~~desensitization~~ deterioration of radar sensitivity is detected when the first counter exceeds a predetermined value.

24. (currently amended) The method according to claim 23, wherein at least a first and a second threshold are used in determining that ~~desensitization~~ deterioration of radar sensitivity is detected, and counting step values of the second and first counters are increased respectively when an average received power value is larger than the first threshold and the average received power value is smaller than the second threshold.

25. (currently amended) A program ~~used~~ embodied on at least one computer-readable medium storing instructions to direct a computer to execute a process comprising:

emitting/receiving radio waves using radio radar in different directions;

extracting a plurality of parameters relating to ~~desensitization~~ deterioration of radar sensitivity from received radio waves obtained from different directions; and

determining whether ~~or not~~ received power of received waves indicates ~~desensitization~~ deterioration of radar sensitivity of radio radar using a threshold not constant at least for one parameter in a multidimensional space representing the plurality of parameters using coordinate axes.